

Vernier Sensor Interference Tables

The following tables were constructed by testing pairs of sensors in a 1L beaker containing 600 mL of water. The water was at 22°C and had a conductivity of approximately 6,000 $\mu\text{S}/\text{cm}$.

Good = no interference

OK = minimal interference; probably OK to use

Bad = interference on one or both sensors

Table 1a: One LabQuest as a standalone (on AC power)

| | CON | DO | pH | ISE | SAL |
|------------|------------|-----------|-----------|------------|------------|
| CON | Bad | OK | Bad | Bad | Bad |
| DO | OK | Good | OK | Good | OK |
| pH | Bad | OK | Good | Bad | Bad |
| ISE | Bad | Good | Bad | Bad | Bad |
| SAL | Bad | OK | Bad | Bad | Bad |

Table 1b: One LabQuest as a standalone (on battery)

| | CON | DO | pH | ISE | SAL |
|------------|------------|-----------|-----------|------------|------------|
| CON | Bad | Good | Bad | Bad | Bad |
| DO | Good | Good | Good | Good | Good |
| pH | Bad | Good | Good | Bad | Bad |
| ISE | Bad | Good | Bad | Bad | Bad |
| SAL | Bad | Good | Bad | Bad | Bad |

Table 2a: Two LabQuests as standalones (on AC power)

| | CON | DO | pH | ISE | SAL |
|------------|------------|-----------|-----------|------------|------------|
| CON | Good | OK | Bad | OK | OK |
| DO | OK | Bad | Bad | Bad | Bad |
| pH | Bad | Bad | Bad | Bad | Bad |
| ISE | OK | Bad | Bad | Good | OK |
| SAL | OK | Bad | Bad | OK | OK |

Table 2b: Two LabQuests as standalones (on batteries)

| | CON | DO | pH | ISE | SAL |
|------------|------------|-----------|-----------|------------|------------|
| CON | Good | OK | Good | Good | Good |
| DO | OK | OK | OK | OK | OK |
| pH | Good | OK | Good | Good | Good |
| ISE | Good | OK | Good | Good | Good |
| SAL | Good | OK | Good | Good | Good |

Table 3: One LabQuest attached to one computer (on AC or battery)

| | CON | DO | pH | ISE | SAL |
|------------|------------|-----------|-----------|------------|------------|
| CON | Bad | Bad | Bad | Bad | Bad |
| DO | Bad | Good | Bad | Bad | Bad |
| pH | Bad | Bad | OK | OK | OK |
| ISE | Bad | Bad | OK | Bad | Bad |
| SAL | Bad | Bad | OK | Bad | Bad |

Table 4: Two LabQuests attached to one computer (on AC or batteries)

| | CON | DO | pH | ISE | SAL |
|------------|------------|-----------|-----------|------------|------------|
| CON | Bad | OK | Bad | Bad | Bad |
| DO | OK | Good | Bad | Bad | Bad |
| pH | Bad | Bad | OK | OK | OK |
| ISE | Bad | Bad | OK | Bad | Bad |
| SAL | Bad | Bad | OK | Bad | Bad |

Table 5: One LabPro (on AC power or batteries) attached to one computer

| | CON/SAL | DO | pH | ISE |
|----------------|----------------|-----------|-----------|------------|
| CON/SAL | Bad | Bad | Bad | Bad |
| DO | Bad | OK | Bad | Bad |
| pH | Bad | Bad | Bad | Bad |
| ISE | Bad | Bad | Bad | OK |